



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

M.F.

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/775,434

02/10/2004

John K. Roberts

GEN10 P-453

9417

28469

7590

10/23/2006

PRICE, HENEVELD, COOPER, DEWITT, & LITTON,  
LLP/GENTEX CORPORATION  
695 KENMOOR, S.E.  
P O BOX 2567  
GRAND RAPIDS, MI 49501

EXAMINER

DHARIA, PRABODH M

ART UNIT

PAPER NUMBER

2629

DATE MAILED: 10/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/775,434		ROBERTS ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Prabodh M. Dharia		2629	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 August 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-24 is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-10, 12, 13, 16, 17 and 25-30 is/are rejected.
- 7) ☒ Claim(s) 5, 6, 11, 14 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

Art Unit: 2629

1. **Status:** Please all replies and correspondence should be addressed to examiner's art unit 2629. Receipt is acknowledged of papers submitted on August 24, 2006 under amendments and request for reconsideration, which have been placed of record in the file. Claims 1-30 are pending in this action.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4,7-10,12,13,16,17 and 25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tonar et al. (US 2005/0007645 A1) in view of Weller et al. (US 2004/0032675 A1).

Regarding Claim 1, Tonar et al. teaches a rearview mirror assembly (page 3, paragraph 21, Lines 1,2), comprising: an information display (page 3, paragraph 21, Lines 1-5, page 14, paragraph 135 Lines 1-4, page 23, paragraph 194, Lines 10-13, page 3, paragraph 21, Lines 1-5, page 4, paragraph 21, Lines 1-22, page 21, paragraph 184, Lines 9-19, page 30, paragraph 249, Lines 1-11, page 21, paragraph 184,185, page 25, paragraph 206, Lines 9-13, page 29, paragraph 239, Lines 3-8) at least partially positioned behind a reflective element (page 14, paragraph 135 Lines 1-4, page 23, paragraph 194, Lines 10-13) with respect to an anticipated viewer (page 3,

Art Unit: 2629

paragraph 21, Lines 1-5, page 4, paragraph 21, Lines 1-22, page 21, paragraph 184, Lines 9-13); said information display comprising a negative mode (page 21, paragraph 184, Lines 16-19, like negative display the display black characters), backlit, liquid crystal display (page 30, paragraph 249, Lines 1-11) having at least two characters (page 21, paragraph 184, 185, page 25, paragraph 206, Lines 9-13, page 29, paragraph 239, Lines 3-8).

However, Tonar et al. fails to recite or disclose specifically backlit, liquid crystal display, having at least two characters, each of said characters has individual backlighting associated therewith, wherein said backlighting of a given character is controllable independent of backlighting of any other character.

However, Weller et al. recite or disclose a rearview mirror assembly (page 8, paragraph 73, Line 2), comprising: an information display (page 8, paragraph 73, Line 2, page 9, paragraph 76, right hand column Lines 27-29, page 3, paragraph 21, Lines 16,17, page 17, paragraph 129, Lines 15-19, page 9, paragraph 73, Lines 1-11, page 2, paragraph 11, Line 9, page 17, paragraph 130, right hand column, Lines 15,16, Lines 2,3, page 11, paragraph 87, Lines 4-11, page 11, paragraph 89, left hand column Lines 11-18, and right hand column Lines 1-11, page 11, paragraph 91, Lines 1-7) at least partially positioned behind a reflective element (page 9, paragraph 73, Lines 1-11) with respect to an anticipated viewer said information display comprising backlit (page 9, paragraph 73, Lines 6-11, page 2, paragraph 11, Line 9), liquid crystal display (page 17, paragraph 130, right hand column, Lines 15,16, Lines 2,3), having at least two characters (page 11, paragraph 87, Lines 4-11), each of said characters has individual backlighting associated therewith ( page 8, paragraphs 72, page 11, paragraph 89, left hand column Lines 11-18, and right hand column Lines 1-11 ), wherein said backlighting of a given

Art Unit: 2629

character is controllable independent of backlighting of any other character (see figures 4,5, pages 8,9 paragraph 72,73, page 11, paragraph 89, left hand column, Lines 11-18, right hand column 1-11 teaches in a indicia display each light emitting diodes are energized individually to illuminate individual indicia page 11, paragraph 91, Lines 1-7).

Thus it would have been obvious to one in the ordinary skill in the art at the time of invention was made to incorporate the teaching of Weller et al. in to the Tonar et al. teaching, to be able to provide a display device with illumination system for providing high brightness, which includes compass system and display is a backlit liquid crystal display.

Regarding Claim 2, Tonar et al. fails to recite or disclose specifically display comprising backlit, liquid crystal display, having at least two characters, each of said characters has individual backlighting associated therewith, wherein said backlighting of a given character is controllable independent of backlighting of any other character.

However, Weller et al. recite or disclose display comprising backlit (page 9, paragraph 73 Lines 6-11), liquid crystal display (page 17, paragraph 130, right hand column, Lines 15,16, Lines 2,3), having at least two characters (page 11, paragraph 87, Lines 4-11), each of said characters has individual backlighting associated therewith (page 11, paragraph 89, Lines 11-17), wherein said backlighting of a given character is controllable independent of backlighting of any other character (see figures 4,5, pages 8,9 paragraph 72,73, page 11, paragraph 89, left hand column, Lines 11-18, right hand column Lines 1-11 teaches in a indicia display each light emitting diodes are energized individually to illuminate individual indicia and paragraph 91).

Thus it would have been obvious to one in the ordinary skill in the art at the time of

Art Unit: 2629

invention was made to incorporate the teaching of Weller et al. in to the Tonar et al. teaching, to be able to provide a display device with illumination system for providing high brightness to individual indicia or character, which includes compass system and display is a backlit liquid crystal display.

Regarding Claim 3,7,8,16,17, Tonar et al. fails to recite or disclose specifically reflective element is automatically dimming and the intensity of said backlit liquid crystal display is a function of the reflectivity of said automatically dimming reflective element, glare sensor and /or ambient light sensor circuitry.

However, Weller et al. recite or disclose reflective element is automatically dimming and the intensity of said backlit liquid crystal display is a function of the reflectivity of said automatically dimming reflective element, glare sensor and /or ambient light sensor circuitry. (see figures 4,5, pages 8,9 paragraph 72,73, page 10, paragraph 82, Lines 1-6, page 6, paragraph 61, Lines 1-20, page 3, paragraph 19, Lines 8-15).

Thus it would have been obvious to one in the ordinary skill in the art at the time of invention was made to incorporate the teaching of Weller et al. in to the Tonar et al. teaching, to be able to provide a display device with illumination system for providing high brightness to individual indicia or character, which includes compass system, where display is a backlit liquid crystal display and to reduce annoyance to anticipated viewer include automatic dimming.

Regarding Claim 4,10,13 Tonar et al. fails to recite or disclose a diffuser positioned between a backlit liquid crystal display and backlighting associated with said liquid crystal

Art Unit: 2629

display, wherein said diffuser redirects light rays emitted by said backlighting as a function of the position of said liquid crystal display relative to at least one anticipated viewer.

However, Weller et al. recites or discloses a diffuser (page 3, paragraph 22, Lines 5-8 right hand side column) positioned between a backlit liquid crystal display and backlighting (page 15, paragraph 112, Lines 1-4) associated with said liquid crystal display (page 17, paragraph 130, Lines 2,3 right hand side column), wherein said diffuser redirects light rays emitted by said backlighting as a function of the position of said liquid crystal display relative to at least one anticipated viewer (page 3, paragraph 22, Lines 5-13 right hand side column).

Thus it would have been obvious to one in the ordinary skill in the art at the time of invention was made to incorporate the teaching of Weller et al. in to the Tonar et al. teaching, to be able to provide a display device with illumination system for providing high brightness to individual indicia or character, which includes compass system, where display is a backlit liquid crystal display and redirects light with the help of diffuser display the information directed towards anticipated viewer (driver of the vehicle).

Regarding Claim 9, Tonar et al. teaches a rearview mirror assembly (page 3, paragraph 21, Lines 1,2), comprising: an information display (page 14, paragraph 135 Lines 1-4, page 23, paragraph 194, Line13) having at least two characters (page 21, paragraph 184,185, page 25, paragraph 206, Lines 9-13, page 29, paragraph 239, Lines 3-8).

However, Tonar et al. fails to recite or disclose specifically backlit, liquid crystal display, having at least two characters, each of said characters has individual backlighting associated and

Art Unit: 2629

a display driver having more outputs than said liquid crystal display has characters, wherein at least one output of said display driver is used to control said back lighting.

However, Weller et al. recite or disclose a rearview mirror assembly (page 8, paragraph 73, Line 2), comprising: an information display (page 9, paragraph 76, right hand column Lines 27-29, page 3, paragraph 21, Lines 16,17, page 17, paragraph 129, Lines 15-19), liquid crystal display (page 17, paragraph 130, right hand column, Lines 15,16, Lines 2,3), having at least two characters (page 11, paragraph 87, Lines 4-11), each of said characters has individual backlighting associated therewith (see figures 4,5, pages 8,9 paragraph 72,73, page 11, paragraph 89, left hand column Lines 11-18, and right hand column Lines 1-11 ) and a display driver having more outputs than said liquid crystal display has characters, wherein at least one output of said display driver is used to control said back lighting (see figures 9, 9A page 12, paragraphs 98,99).

Thus it would have been obvious to one in the ordinary skill in the art at the time of invention was made to incorporate the teaching of Weller et al. in to the Tonar et al. teaching, to be able to provide a display device with illumination system for providing high brightness, which includes compass system and display is a backlit liquid crystal display.

Regarding Claim 12,25-30 Tonar et al. teaches a rearview mirror assembly (page 3, paragraph 21, Lines 1,2), comprising: an information display (page 14, paragraph 135 Lines 1-4, page 23, paragraph 194, Line13) having at least two characters (page 21, paragraph 184,185, page 25, paragraph 206, Lines 9-13, page 29, paragraph 239, Lines 3-8).



However, Tonar et al. fails to recite or disclose specifically backlit, liquid crystal display, having at least two characters, each of said characters has individual backlighting associated and a display driver having more outputs than said liquid crystal display has characters, wherein at least one output of said display driver is used to control said back lighting and reflective element is automatically dimming and the intensity of said backlit liquid crystal display is a function of the reflectivity of said automatically dimming reflective element, glare sensor and /or ambient light sensor circuitry.

However, Weller et al. recite or disclose a rearview mirror assembly (page 8, paragraph 73, Line 2), comprising: an information display (page 9, paragraph 76, right hand column Lines 27-29, page 3, paragraph 21, Lines 16,17, page 17, paragraph 129, Lines 15-19), liquid crystal display (page 17, paragraph 130, right hand column, Lines 15,16, Lines 2,3), having at least two characters (page 11, paragraph 87, 4-11), each of said characters has individual backlighting associated therewith (see figures 4,5, pages 8,9 paragraph 72,73, page 11, paragraph 89, left hand column Lines 11-18, and right hand column Lines 1-11 ) and reflective element is automatically dimming and the intensity of said backlit liquid crystal display is a function of the reflectivity of said automatically dimming reflective element, glare sensor and /or ambient light sensor circuitry (page 10, paragraph 82, Lines 1-6, page 6, paragraph 61, Lines 1-20, page 3, paragraph 19, Lines 8-15).

Thus it would have been obvious to one in the ordinary skill in the art at the time of invention was made to incorporate the teaching of Weller et al. in to the Tonar et al. teaching, to be able to provide a display device with illumination system for providing high brightness to

Art Unit: 2629

individual indicia or character, which includes compass system, where display is a backlit liquid crystal display and to reduce annoyance to anticipated viewer include automatic dimming.

*Allowable Subject Matter*

4. Claims 18-24 are allowed.

5. Claims 5,6,11,14,15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is an examiner's statement of reasons for allowance: **A rearview mirror assembly,** comprising: an information display at least partially positioned behind a reflective element with respect to an anticipated viewer; said information display comprising **a negative mode, backlit, liquid crystal display having at least two characters, each of said characters has individual backlighting associated therewith, wherein said backlighting of a given character is controllable independent of backlighting of any other character;** a display driver having more outputs than said liquid crystal display has characters, wherein at least one output of said display driver is used to control said backlighting; and a diffuser positioned between a backlit liquid crystal display and backlighting associated with said liquid crystal display, wherein said diffuser redirects light rays emitted by said backlighting as a function of at least one of the following; the position of said liquid crystal display relative to at least one anticipated viewer and **a planar surface of said diffuser relative to a viewing angle of at least one anticipated viewer;** wherein said reflective element is automatically dimming and the

Art Unit: 2629

intensity of said backlit liquid crystal display is a function of the reflectivity of said automatically dimming reflective element; and wherein said reflective element is at least partially transmissive **and an optimum light ray wavelength transmission of said reflective element is substantially equal to the predominant wavelength of light rays emitted from said information display.**

Cited references on 892's fail to teach underlined bold claim above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Response to Arguments***

7. Applicant's arguments, see Remarks, filed 08-24-2006, with respect to the rejection(s) of claim(s) 18 under request for reconsideration have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

8. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the

Art Unit: 2629

applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

9. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Tonar et al. and Weller et al. both teaches rear view mirror display features. Tonar et al. teaches a rearview mirror assembly (page 3, paragraph 21, Lines 1,2), comprising: an information display (page 14, paragraph 135 Lines 1-4, page 23, paragraph 194, Line13) at least partially positioned behind a reflective element (page 14, paragraph 135 Lines 1-4, page 23, paragraph 194, Lines 10-13) with respect to an anticipated viewer (page 3, paragraph 21, Lines 1-5, page 4, paragraph 21, Lines 1-22, page 21, paragraph 184, Lines 9-13); said information display comprising a negative mode (page 21, paragraph 184, Lines 16-19, like negative display the display black characters), backlit, liquid crystal display (page 30, paragraph 1-11) having at least two characters (page 21, paragraph 184,185, page 25, paragraph 206, Lines 9-13, page 29, paragraph 239, Lines 3-8) and Weller et al. recite or disclose a rearview mirror assembly (page 8, paragraph 73, Line 2), comprising: an information display (page 9, paragraph 76, right hand column Lines 27-29, page 3, paragraph 21, Lines 16,17, page 17, paragraph 129, Lines 15-19) at least partially positioned behind a reflective element (page 9, paragraph 73, Lines 1-11) with

Art Unit: 2629

respect to an anticipated viewer said information display comprising backlit (page 9, paragraph 73 Lines 6-11, page 2, paragraph 11, Line 9), liquid crystal display (page 17, paragraph 130, right hand column, Lines 15,16, Lines 2,3), having at least two characters (page 11, paragraph 87, 4-11), each of said characters has individual backlighting associated therewith (see figures 4,5, pages 8,9 paragraph 72,73, page 11, paragraph 89, left hand column Lines 11-18, and right hand column Lines 1-11 ), wherein said backlighting of a given character is controllable independent of backlighting of any other character (see figures 4,5, pages 8,9 paragraph 72,73, page 11, paragraph 89, left hand column, Lines 11-18, right hand column 1-11 teaches in a indicia display each light emitting diodes are energized individually to illuminate individual indicia page 11, paragraph 91, Lines 1-7). The combination teaches applicant's claimed invention and therefore they do obviate.

10. Applicant's arguments filed 03-28-2006 have been fully considered but they are not persuasive.

Applicant argues regarding claims 1-8, 25-30 cited references fails to recite or suggest liquid crystal display having at least two characters, each of said characters has individual backlighting associated therewith, wherein said backlighting of a given character is controllable independent of backlighting of any other character.

Examiner disagrees as Tonar et al. teaches as recited above a rearview mirror assembly, comprising: an information display at least partially positioned behind a reflective element with respect to an anticipated viewer; said information display comprising a negative mode, backlit, liquid crystal display having at least two characters (page 3, paragraph 21, Lines 1-5, page 14,

Art Unit: 2629

paragraph 135 Lines 1-4, page 23, paragraph 194, Lines 10-13, page 3, paragraph 21, Lines 1-5, page 4, paragraph 21, Lines 1-22, page 21, paragraph 184, Lines 9-19, page 30, paragraph 249, Lines 1-11, page 21, paragraph 184,185, page 25, paragraph 206, Lines 9-13, page 29, paragraph 239, Lines 3-8) and as recited above Weller et al. recite or disclose a rearview mirror assembly, comprising: an information display at least partially positioned behind a reflective element with respect to an anticipated viewer said information display comprising backlit, liquid crystal display, having at least two characters, each of said characters has individual backlighting associated therewith, wherein said backlighting of a given character is controllable independent of backlighting of any other character (see figures 4,5, pages 8,9 paragraph 72,73, page 11, paragraph 89, left hand column, Lines 11-18, right hand column 1-11 teaches in a indicia display each light emitting diodes are energized individually to illuminate individual indicia page 11, paragraph 91, Lines 1-7). The combination teaches applicant's claimed invention and therefore they do obviate.

### ***Conclusion***

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

Art Unit: 2629

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prabodh M Dharia whose telephone number is 571-272-7668.

The examiner can normally be reached on M-F 8AM to 5PM.

13. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:


Commissioner of Patents and Trademarks

Washington, D.C. 20231

PD

AU2629

October 16, 2006

  
BIPIN SHALWALA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600